



Report of Investigation
into the Grounding of the
Local Passenger Ferry “Xin Jie”
on 12 May 2006



The Hong Kong Special Administrative Region
Marine Department
Marine Accident Investigation Section

Purpose of Investigation

This incident is investigated, and published in accordance with the IMO Code for the Investigation of Marine Casualties and Incidents promulgated under IMO Assembly Resolution A.849(20). The purpose of this investigation conducted by the Marine Accident Investigation and Shipping Security Policy Branch (MAISSPB) of Marine Department is to determine the circumstances and the causes of the incident with the aim of improving the safety of life at sea and avoiding similar incident in future.

The conclusions drawn in this report aim to identify the different factors contributing to the incident. They are not intended to apportion blame or liability towards any particular organization or individual except so far as necessary to achieve the said purpose.

The MAISSPB has no involvement in any prosecution or disciplinary action that may be taken by the Marine Department resulting from this incident.

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2. Description of the vessel

2.1 *Xin Jie* (新傑)

License No.	:	4123
Type	:	Single Ended Double Deck Ferry
Length	:	42.26 metres
Breadth	:	8.25 metres
Gross Tonnage	:	232.68
Net Tonnage	:	95.98
License to carry	:	629 passengers and 18 crew
Main Engine	:	2 x GM 8V 92 TA DDEC II
Engine Power	:	2 x 530 BHP
Service Speed	:	13 knots
Year of Built	:	1982

Xin Jie is deployed for carrying passengers from Central to Mui Wo or Peng Chau. The vessel is equipped with a magnetic compass, 2 radars, an electronic chart and a VHF. At the time of the accident, the passenger ferry was carrying 81 passengers from Central to Mui Wo at a speed of 13 knots.



Figure 2 - Photograph of *Xin Jie*

3. Sources of evidence

- 3.1 Report of Marine Accident provided by the Master of *Xin Jie*;
- 3.2 Statements provided by the Master, Assistant Master and Chief Engineer of *Xin Jie*;
- 3.3 New World First Ferry Services Limited;
- 3.4 Tseung Kwan O Hospital; and
- 3.5 Two passengers on board *Xin Jie* were interviewed by telephone by the Investigating Officer.

4. Outline of events

- 4.1 At about 1230 on 12 May 2006, *Xin Jie* departed from Central to Mui Wo with 81 passengers on board. The journey normally takes 50 minutes with a normal cruising speed of 13 knots.
- 4.2 According to the Master and Chief Engineer, the machinery and navigation equipment were all in normal working order. The Master stated that throughout the passage prior to the grounding, the weather and visibility were good with a southwesterly wind of force 4.
- 4.3 At the time of the incident the Master and the Assistant Master were on the bridge. The Assistant Master was steering the vessel while the Master was keeping a lookout.
- 4.4 *Xin Jie* followed a recommended track in the main fairways i.e. Central Fairway, Southern Fairway and North Green Island Fairway of Victoria Harbour after departure from Central Pier No. 6. After passing Green Island, *Xin Jie* followed a course of 252 °T and subsequently 250 °T after passing south of Kau Yi Chau. *Xin Jie* altered course to 288 °T after passing south of Man Kok Tsui heading for Mui Wo Ferry Pier.

- 4.5 After altering course to 288 °T, the Assistant Master sighted a rope with a length of about 10 metres floating on the sea surface at a distance of about 20 metres with a bearing fine on the port bow, he then altered course to starboard in order to keep clear of the rope.
- 4.6 When the vessel was turning to starboard, the Assistant Master suddenly felt dizzy and collapsed with his body rested on the steering wheel causing the vessel continue to steer to starboard and towards the shore. The Master who was sitting at the right hand side of the Assistant Master tried to lift the body of the Assistant Master away from the steering wheel in order to get control of the steering. The Master also put the engines astern to stop the vessel. However, due to close proximity to the shore, the vessel ran aground at 1310. A female passenger on the lower deck sustained minor head injury as a result of grounding.
- 4.7 The grounding incident was reported to Marine Department via the ferry company by the Master at 1335. After grounding, the Master made a broadcast informing the passengers that the vessel had grounded and all the passengers were requested to don lifejackets and stayed calm in their seats.
- 4.8 Fire boats, Police and Marine Department launches arrived at the scene at about 1340. All the passengers were carried by a Fire Boat to Mui Wo. The Assistant Master and the injured passenger were sent to Mui Wo Clinic for medical treatment.
- 4.9 At about 1940 *Xin Jie* was towed away from the grounding position by two tug boats and was escorted by a tug boat to sail under her own power to a shipyard in Tsing Yi for repair.

5. Analysis of evidence

5.1 Certification and Experience of Personnel

5.1.1 The Master obtained the 300 tons local Master Certificate in 1996 with an endorsement to take charge of a vessel up to 1550 nett tons and has been working as a Master on *Xin Jie* for about 7 years.

5.1.2 The Assistant Master obtained the 60 tons local Master Certificate in 1995 and has been working as an Assistant Master on local ferries for about 12 years.

5.1.3 The Master is properly qualified and has worked on similar type of vessels as an assistant master for about 5 years prior to taking up the post of master on *Xin Jie*. The Assistant Master was under supervision by the Master. Both of them are considered very experienced for their posts on *Xin Jie*.

5.2 Conditions of weather and visibility

5.2.1 It was reported that the weather was fine with a visibility of about 3 nautical miles and there was an easterly light breeze. The weather conditions were not considered a contributory factor to the accident.

5.3 Certificate of vessel

5.3.1 Under the Merchant Shipping (Launches and Ferry Vessels) Regulations, the vessel is subject to an annual survey for her hull, machinery and equipment. The Certificate of Survey was found in order with validity up to 13 March 2007. After grounding, the engines were tested and found in order.

5.4 Medical Examination of Local Ferry Master and Engineer

5.4.1 Under the current legislation, certificate holders are required to obtain a medical fitness certificate when they wish to extend the validity of their certificates of competency for a further period of 3 years when attaining the age of 65 years.

5.4.2 The age of the Master of “*Xin Jie*” is 55 and the Assistant Master is 57. The last medical examination for both of them was in January 2000 when they

joined the New World First Ferry Services Ltd. The Assistant Master has suffered from hypertension since December 2004 and is taking drug twice daily to control the blood pressure. The name of the drug taken by the Assistant Master is “Nifedipine (Adalat Retard)” which has a side effect of causing dizziness. The Assistant Master stated that he had taken the drug prior to taking up duty in the morning of 12 May 2006.

5.6 Fatigue

5.6.1 The Master and the Assistant Master of *Xin Jie* operate on a 24 hours on and 24 hours off basis. They take over the duty at 0700 and go off duty at 0700 the following morning. Normally, their navigational duties finish at around midnight and they just standby on board the vessel until the next morning. They will deliver the vessel to the Central Pier the next morning and will be relieved by another master and assistant master at about 0700. In this particular case, the Master went off duty at 0655 in the morning of 11 May 2006 and resumed duty the next morning at about 0700 i.e. off-duty for 1 day. The Assistant Master was off duty and holiday for 3 days and resumed duty at about 0700 on 12 May 2006. Figure 4 gives an account of the duty rosters of the Master and Assistant Master.

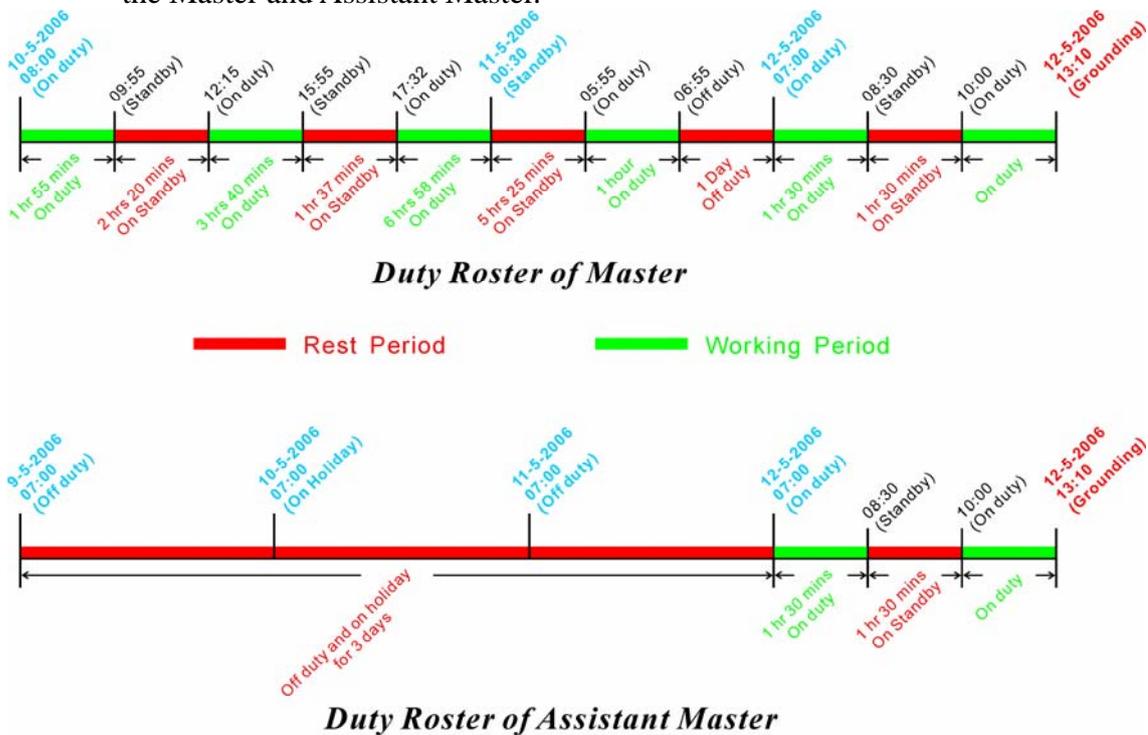


Figure 4 – Duty Rosters of the Master and Assistant Master prior to Grounding

5.6.2 Both the Master and the Assistant Master had had good rest prior to taking up their duties in the morning of 12 May 2006 and the accident occurred in daylight at 1310 i.e. only about 6 hours after the Master and the Assistant Master took up their duties on that day. Fatigue was therefore not considered as a contributory factor in this accident.

5.7 Response of master in emergency

5.7.1 Noting that the Assistant Master suddenly fell unconscious and fell on the steering wheel, the immediate action of the Master was trying to lift the body of the Assistant Master so that he could steer the wheel to port. The Master also put the engines astern to prevent the vessel from running aground. If the Master put the engines astern first prior to lifting the body of the Assistant Master, there might be a chance to save the vessel from running aground. However, it is a natural instinct for every master to take immediate and effective action by steering the vessel away from the potential dangerous area before first stopping the engine and engaging the astern movement of the vessel. The Master also under-estimated the time needed to lift the heavy body of the Assistant Master and this had caused delay in taking action to avoid grounding. Figure 5 depicts that the position of the steering wheel was directly in front of the seat of the Assistant Master while the position of the engine control was directly in front of the seat of the Master. The Master had an easy access to the engine control but it was less convenient for him to reach the steering wheel as it was positioned directly in front of the Assistant Master.



Figure 5 – Bridge Layout of *Xin Jie*

6. Conclusions

- 6.1 The time of the grounding was about 1310 on 12 May 2006 and the grounding position was $22^{\circ} 15.9'N$ $114^{\circ} 00.89'E$ west of Man Kok Tsui.
- 6.2 At the material time, the weather condition and visibility were favourable and they are not considered to have contributed to the accident.
- 6.3 A female passenger sustained minor head injury. The bow of *Xin Jie* sustained minor structural damage.
- 6.4 Fatigue was not considered as a contributory factor in this accident as both the Master and the Assistant Master had had good rest prior to taking up their duties and the grounding took place at a time only 6 hours after the Master and the Assistant Master first took up their duties on that day.

- 6.5 It is believed that the probable cause of grounding was due to sudden onset of dizziness the Assistant Master suffered due to transient ischemic attack when he was altering course to starboard to keep clear of a floating rope and the lack of time for the Master to regain control of the steering of the vessel.

7. Recommendations

- 7.1 New World First Ferry Services Limited should require their master /assistant master to inform the company if they are ill or have taken medicines.
- 7.2 New World First Ferry Services Limited should prepare a contingency plan for master/assistant master to handle unexpected sudden collapse of master/assistant master.

8. Submissions

- 8.1 In the event that the conduct of any person or organization is criticized in an accident investigation report, it is the policy of the Marine Department that a copy of the relevant parts of the report is given to that person or organization so that he can have an opportunity to rebut the criticism or offer evidence not previously available to the investigating officer.
- 8.2 The final draft of the report was sent to the following parties:
- Master of *Xin Jie*
Assistant Master of *Xin Jie*
Owner of *Xin Jie* i.e. New World First Ferry Services Limited
- 8.3 No submission was received from the Master, Assistant Master and Owner of *Xin Jie*.